

METHOD AND APPARATUS FOR ROLLED FINGERPRINT IMAGE CAPTURE WITH VARIABLE BLENDING

ABSTRACT

A composite image of a finger rolling relative to an imaging device is generated by stitching together image data from a plurality of image frames. The areas of each image that contain useful fingerprint information are identified and the speed of movement of the finger relative to the imaging path is determined. The frames are stitched together in sequence and data for pixels near the boundary between adjacent images is blended, so that values for those pixels are determined based on redundant data from both adjacent images. The extent of blending is based at least in part on movement speed of the finger, so that as speed increases blending is applied to an increasing number of the pixels in the boundary area. Blending may be accomplished using a weighting function where data from a primary frame is given primary weight while data from a secondary or redundant frame is given relatively less weight, and weight given to pixels from the secondary frame declines as distance increases between those pixels and the boundary between frames.